

Thermal

The staff agrees with the applicant's conclusion that stresses induced by differential thermal expansion and temperature increases have no significant effects on packaging safety.

Immersion

Not applicable, fissile packages only.

THERMAL

Only the accident conditions (1/2-hour fire) was considered. Package performance was evaluated by discussing bounding performance limits for the packages is subjected to a 1/2-hour, 1475°F fire. The components of the package are shown to have melt temperatures above 1475°F with the exception of polyurethane foam filler material. A vent is provided for products of decomposition for the foam; loss of the foam in the fire test does not reduce package effectiveness.

The staff agrees with the conclusion presented in the application that the package satisfies normal and accident condition requirements of 10 CFR Part 71.

SHIELDING

The applicant has demonstrated by measurements the adequacy of the depleted uranium shield for the Model No. C-10 under normal and accident damage conditions for the maximum iridium-192 loading of 240 curies. The DOT normal condition of transport was shown to be satisfied by actual gamma profile measurements which gave dose rates well below the 200 mr/hr surface dose rate limit. The applicant has also shown by measurements that when subjected to the accident damage conditions, the subject container satisfies the Part 71 accident radiation limit of less than 1000 mr/hr, 3 feet from the surface of the container.

The above results demonstrate satisfaction of 10 CFR §71.36 which has a permissible limit of 1000 mr/hr at 3 feet from the external surface of the package under accident conditions.

CRITICALITY

Not applicable, no fissile material.